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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/550,867 | 04/17/2000 | James N. Freeman | | 1611 |

35114 7590 11/07/2003

ALCATEL INTERNETWORKING SYSTEM, INC.
ALCATEL-INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

RICHEY, JAMES J

ART UNIT PAPER NUMBER

2663

DATE MAILED: 11/07/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/550,867

Applicant(s)

FREEMAN, JAMES N.

Examiner

James J. Richey

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7, 8 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 9-12, 14-18 is/are rejected.
- 7) ☒ Claim(s) 5 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because:

Figure 2, item 209 does not clearly point out what it is in reference to.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

Page 7, line 6 makes reference to 'LEM2 125' in Figure 1. Figure 1 discloses LEM2 as being designated by item 120.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 4, 6, 9-11, 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Fan, Patent Number 6,625,124.

Regarding Claims 1 & 2: Figure 1 in Fan illustrates virtual networks 21 and 22 connected by multiple nodes (R/M) that are in turn connected to the Internet at 24 and 25. Figure 5 discloses the internal makeup of these nodes, and particularly points out switching card 38. This card is further illustrated in Figure 6. Long addresses of the devices in the networks are found by the sending of a control packet between each device (col. 14, lines 1-11). Once every device has been accounted for, the long addresses are sorted and then assigned a corresponding short addresses that are picked from reserved addresses within the switches of the nodes (col. 5, lines 32-42; col. 17, lines 1-14). These short addresses are applied locally only, within the switching apparatus of the nodes, while the long addresses are globally applied to the Internet (col. 3, lines 33-39). This is done for both virtual networks and applied to the switches in each of them, as well as those in the multiple nodes around the ring.

Regarding Claim 3: Fan discloses that the addresses to be used in the invention are MAC addresses (col. 6, lines 1-16; col. 3, lines 65-67; col. 4, lines 1-4).

Regarding Claim 4 & 6: Fan further discloses that the invention uses dual addressing, which links both the long (MAC) and short (intra-switch only) addresses of a device together within a switch (col. 5, lines 43-59; col. 3, lines 23-32). As discussed previously, the switch uses the short address locally only (within the switch), while the long address is globally recognized (outside of the network). Also mentioned, these long addresses can be MAC addresses and, as such, are unique for each manufacturer and are reserved and applied to devices of that manufacturer only.

Regarding Claim 9, 11, 17: As mentioned, Fan discloses a virtual network, comprised of switches that have device specific MAC (organizationally unique) addresses applied to them, as well as local short (organizationally redundant) addresses used only within the switches. The short addresses are representative of the full-length MAC addresses and can vary in size depending on the need (col. 5, lines 60-65; col. 6, lines 10-13).

Regarding Claim 10 & 18: As previously discussed, the long MAC (organizationally unique) addresses used in the switches are globally recognized by the Internet and are seen outside of the local network.

Regarding Claim 14: As disclosed, Fan's invention reserves and assigns shortened MAC addresses of devices within a virtual network to the internal switches of the network. The shortened addresses are used only within the nodes of the network and are not applied outside of the switches.

Regarding Claim 15: As mentioned, the entire network consists of multiple virtual networks, each of which assigns addresses its switches as discussed above.

Regarding Claim 16: As mentioned, these virtual networks each contain switches, where the addressing scheme is applied.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Ross, Patent Number 5,394,402.

Regarding Claim 12: Figure 3 in Ross discloses three data hubs (10, 110, 210) connected to one another, each supporting multiple end stations, with internal/external ports and a flow processing unit, FPE (40, 140, 240). These hubs are connected to one another, as well as the backbone of a data communications network, by transmission line 76 and act as routers/bridges (switches) to their perspective end stations (col. 1, lines 44-56). Each end station has assigned to it a unique MAC address (second and third addresses) that is stored within the memory of its perspective hub (col. 5, lines 14-48). In addition, each hub has various VLAN designators (first address) stored with their memories that are used within the hubs to associated different addresses with one another (col. 3, lines 8-65; col. 5, lines 14-24). These VLAN's can be unique within a hub or shared between hubs (col. 8, lines 1-20; col. 9, lines 1-24). When a message comes in from the outside network, the destination MAC address is read by the hubs and sent to the appropriate end station by use of the internal VLAN designation, if such a station exists on the hub (col. 9, lines 44-68; col. 10, lines 1-8). Thus, the MAC addresses are applied outside the hubs of the network, while the VLAN identities are known only within the hub itself.

Allowable Subject Matter

7. Claims 5 & 13 are objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

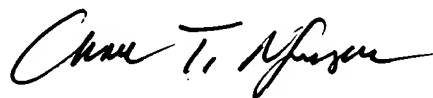
8. Claims 7-8, & 19 are allowable over the disclosed prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James J. Richey whose telephone number is (703) 305-4682. The examiner can normally be reached on M-F: 8:30am-6pm, Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

J.R.



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
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